



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,655	06/28/2002	Rudolf Muller	60174-024	6846

7590 10/29/2003

Gregory D DeGrazia
Howard & Howard Attorneys
The Pinehurst Office Center Suite 101
39400 Woodward Avenue
Bloomfield Hills, MI 48304-5151

EXAMINER

COZART, JERMIE E

ART UNIT PAPER NUMBER

3726

DATE MAILED: 10/29/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

YK

Office Action Summary

Application No.

10/031,655

Applicant(s)

MULLER, RUDOLF

Examiner

Jermie Cozart

Art Unit

3726

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Auxiliary shoulder 7' is not identified in Figure 7 as stated on page 19, line 4 of the specification. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "**said,**" should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Art Unit: 3726

3. The disclosure is objected to because of the following informalities: On page 13, line 15, it is suggested to change "10" to - -10a-10d- -; On page 19, line 19, reference numeral "23" is used to refer to both a "short limb" and a "top side"; On page 20, line 6, it is suggested to change "10" to - -10a-10d- -. Appropriate correction is required.

Claim Objections

4. Claims 1-18 are objected to because of the following informalities: In claim 1, line 2, it is suggested to delete "-like", line 8, it is suggested to change "the material" to - -material- -; In claim 9, line 2, it is suggested to delete "-like". Appropriate correction is required.

5. Claims 4-8 and 13-18 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 3, lines 2-4, it is unclear as to how one produces "wall sections at the outer side of the workpiece opposite the auxiliary joining element which extend parallel to the direction of pressing", when applicant has not clearly defined which side is "the outer side of the workpiece". In claim 19, lines 7-10, it

is unclear as to what is meant by the phrase "i.e. parallel to the axial direction of the auxiliary joining element, are present on the outer side of the work-piece opposite to the auxiliary joining element between the undercut regions". Appropriate correction is required.

8. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

9. Claim 1 recites the limitation "the pressing direction" in lines 6-7 of the claim. There is insufficient antecedent basis for this limitation in the claim.

10. Regarding claims 1 and 8, the phrase "pot-like manner" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "pot-like manner"), thereby rendering the scope of the claim(s) unascertainable.

11. Claim 1 recites the limitation "the die parts" in line 7 of the claim. There is insufficient antecedent basis for this limitation in the claim.

12. Claim 1 recites the limitation "the peripheral directions" in lines 10-11 of the claim. There is insufficient antecedent basis for this limitation in the claim.

13. Claim 3 recites the limitation "the outer side of the workpiece" in line 2 of the claim. There is insufficient antecedent basis for this limitation in the claim.

14. Claim 3 recites the limitation "the direction of pressing" in line 4 of the claim. There is insufficient antecedent basis for this limitation in the claim.

15. Claim 4 recites the limitation "the unit" in lines 3-4 of the claim. There is insufficient antecedent basis for this limitation in the claim.
16. Claim 8 recites the limitation "the peripheral direction" in lines 4-5 of the claim. There is insufficient antecedent basis for this limitation in the claim.
17. Claim 9 recites the limitation "the peripheral wall" in line 6 of the claim. There is insufficient antecedent basis for this limitation in the claim.
18. Claim 9 recites the limitation "the unit" in line 10 of the claim. There is insufficient antecedent basis for this limitation in the claim.
19. Claim 14 recites the limitation "the peripheral direction" in lines 2-3 of the claim. There is insufficient antecedent basis for this limitation in the claim.
20. Claim 19 recites the limitation "the peripheral direction" in line 5 of the claim. There is insufficient antecedent basis for this limitation in the claim.
21. Claim 19 recites the limitation "the pressing direction" in line 6 of the claim. There is insufficient antecedent basis for this limitation in the claim.
22. Claim 19 recites the limitation "the axial direction" in line 7 of the claim. There is insufficient antecedent basis for this limitation in the claim.
23. Claim 19 recites the limitation "the outer side of the workpiece" in line 8 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

24. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 3726

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

25. Claim 19 is rejected under 35 U.S.C. 102(b) as being anticipated by DE 19647831 A1.

DE`831 discloses a work-piece (52) with an auxiliary joining element (10) in which the work-piece has an outwardly directed projection (unlabeled area under 30) into which a foot (14) of the auxiliary joining element projects, characterized in that the foot (14) together with the work-piece forms undercut regions (20, 70) which are restricted in a peripheral direction, parallel to an axial direction of the auxiliary joining element and are present on an outer side of the work-piece opposite to the auxiliary joining element between the undercut regions. *See abstract and Figures 1-7 for further clarification.*

Claim Rejections - 35 USC § 103

26. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

27. Claims 1-3 and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 194647831 A1 or Muller (6,146,072) in view of Sawdon et al.(5,208,974).

Claims 1-3

Both DE `831 and Muller`072, each disclose fastening an auxiliary joining element (10) to a sheet-metal work-piece (52) in which the auxiliary joining element has a foot (14) which is pressed from one side into the work-piece (52) held on a die (60)

having a recess (70) and deforms this work-piece in a pot type manner, characterized in that the recess (70) of the die has wall sections (74) which extend parallel to the pressing direction. The material flows from regions without undercut into regions with undercut (20). DE`831 discloses wall sections (*unlabeled area of work-piece located between outer surface of the joining element (10) and the inner surface of the die (60)*) produced at the outer side of the work-piece (52) opposite to the auxiliary joining element (10) which extends parallel to the direction of pressing. See *column 5, line 39 – column 8, line 34, and Figures 1-6 for further clarification.*

Claims 9-12

Both DE`831 and Muller`072 each disclose an apparatus for the fastening of an auxiliary joining element (10) to a sheet metal work-piece (52) having a die (60) which has a recess (70), and a plunger/holder (56) for the auxiliary joining element (10), the holder being arranged in alignment with the recess and being movable in a pressing direction relative to the die (60). See *column 5, line 39 – column 8, line 34, and Figures 1-6 for further clarification.*

DE`831 and Muller`072, however, do not disclose the recess of the die being interrupted by the die parts which form undercuts into material of the foot and of the work-piece flows and forms undercut regions of the foot and of the work-piece which are restricted in the peripheral direction.

DE`831 and Muller`072 also do not disclose the peripheral wall of the recess having movable wall sections which are arranged on levers with the levers being movable by pressure in the pressing direction into a working position and being fixable there and forming undercut regions and being movable by a movement of the unit

Art Unit: 3726

comprising the work-piece and auxiliary joining element opposite to the pressing direction into a release position in which the undercut regions are fully released, and in that stationary wall sections are provided between the movable wall sections. DE`831 and Muller`072 also do not disclose the levers having a substantially planar top side which in the working position stands perpendicular to the pressing direction and lies in the same plane as the top side of the die, each lever being formed as a cranked lever, or the cranked lever having a short arm on which the wall section is provided and a long arm at which a pivot axis or pivot region is located.

Sawdon`974 discloses the recess (*unlabeled open are surrounding center portion 46*) of the die (34) being interrupted by die parts (42) which form undercuts (not labeled) into material of the foot (18) and of the work-piece (14) flows and forms undercut regions of the foot and of the work-piece which are restricted in the peripheral direction.

Sawdon`974 also discloses the peripheral wall of the recess having movable wall sections (54) which are arranged on levers (42) with the levers being movable by pressure in the pressing direction into a working position and being fixable there and forming undercut regions and being movable by a movement of the unit comprising the work-piece (24) and auxiliary joining element (12) opposite to the pressing direction into a release position in which the undercut regions are fully released, and in that stationary wall sections are provided between the movable wall sections. Sawdon`974 also discloses the levers (42) having a substantially planar top side which in the working position stands perpendicular to the pressing direction and lies in the same plane as the top side of the die, each lever being formed as a cranked lever, and the cranked lever

Art Unit: 3726

having a short arm (*area located near top portion*) on which the wall section is provided and a long arm (*area located near bottom portion*) at which a pivot axis or pivot region is located. See column 4, lines 21- column 7, line 14, and Figures 1-7 for further clarification.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide the apparatus of DE`831 and Muller`072 with an alternative die wherein the recess of the die is interrupted by the die parts which form undercuts into material of the foot and of the work-piece flows, and forms undercut regions of the foot and of the work-piece which are restricted in the peripheral direction, and the peripheral wall of the recess having movable wall sections which are arranged on levers with the levers being movable by pressure in the pressing direction into a working position and being fixable there and forming undercut regions and being movable by a movement of the unit comprising the work-piece and auxiliary joining element opposite to the pressing direction into a release position in which the undercut regions are fully released, and in that stationary wall sections are provided between the movable wall sections, the levers having a substantially planar top side which in the working position stands perpendicular to the pressing direction and lies in the same plane as the top side of the die, each lever being formed as a cranked lever, and the cranked lever having a short arm on which the wall section is provided and a long arm at which a pivot axis or pivot region is located, in light of the teachings of Sawdon`974, in order to effectively form a leak-proof joint.

Conclusion

28. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references listed on the attached PTO-892 are cited to show the installation of fasteners into workpieces using devices comprising a press and die.

29. Telephone inquiries regarding the status of applications or other general questions, by persons entitled to the information, should be directed to the group clerical personnel. In as much as the official records and applications are located in the clerical section of the examining groups, the clerical personnel can readily provide status information. M.P.E.P. 203.08. The Group clerical receptionist number is (703) 308-1148.

30. If in receiving this Office Action it is apparent to applicant that certain documents are missing, e.g., copies of references cited, form PTO-1449, form PTO-892, etc., requests for copies of such papers or other general questions should be directed to Tech Center 3700 Customer Service at (703) 306-5648, or fax (703) 872-9301 or by email to CustomerService3700@uspto.gov.

31. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jermie Cozart whose telephone number is 703-305-0126. The examiner can normally be reached on Monday-Thursday, 7:30 am - 6:00 pm.

32. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Vidovich can be reached on 703-308-1513. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Art Unit: 3726

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

Listed below are a few helpful numbers and web address for The United States Patent and Trademark Office.

Allowed Files & Publication	(703) 308-6789 or (888) 786-0101
Assignment Branch	(703) 308-9723
Certificates of Correction	(703) 305-8309
Drawing Corrections/Draftsman	(703) 305-8404 or (703) 305-8335
Petitions/Special Programs	(703) 305-9285
Terminal Disclaimers	(703) 305-8408
PCT Help Desk	(703) 305-3257
Information Help Line	(800) 786-9199
Internet PTO-Home Page	http:// www.uspto.gov

Jerome S. Boyer

JC

JR
October 26, 2003